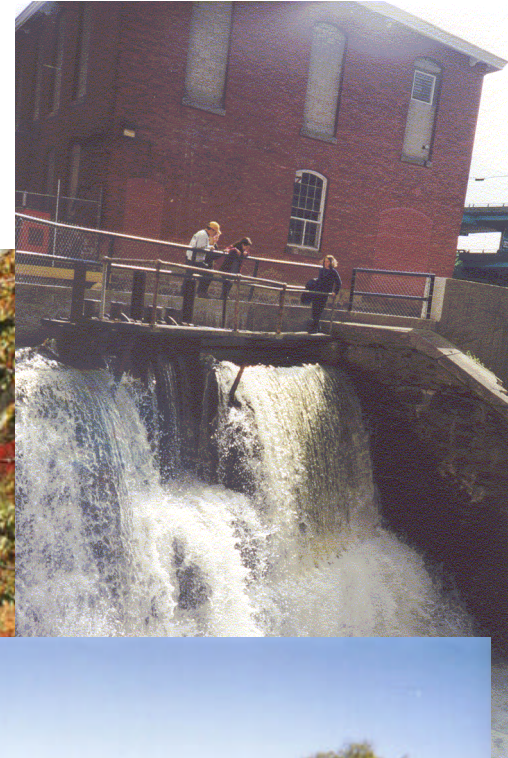


# ***Riverways Programs***

**2002 Annual Report**  
**FY2002- FY2003**



***Riverways Programs***

**Department of Fisheries, Wildlife & Environmental Law Enforcement**

**DECEMBER 2002**

The mission of the Riverways Programs is to promote the restoration, protection and ecological integrity of the Commonwealth's rivers, streams and adjacent lands.

Joan Kimball, *Director*

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Department of Fisheries, Wildlife & Environmental Law  
Enforcement, *Commissioner*, David M. Peters  
Executive Office of Environmental Affairs, *Secretary*, Bob Durand  
*Governor*, Jane M. Swift

~  
December, 2002

The mission of the Riverways Programs is to promote the restoration, protection and ecological integrity of the commonwealth's rivers, streams and adjacent lands.

All the Riverways Programs are based on the belief that local action is the key to river protection. Riverways staff work side-by side with local citizens, town officials, watershed-based groups and other partners to achieve the goals of restoration and protection of the state's rivers and their ecosystems. Riverways Programs offer training technical assistance, publications, funding and Special Programs.

The Riverways Programs has developed several programs targeted to meet the needs of both river advocates and river resources. The programs strive to provide tools citizens may use to protect and restore water quality and healthy stream flows, protect open space and river access, improve fish and wildlife habitats, enhance aesthetics and help reconnect people to their rivers. Each program is directed by one or two staff members (some part-time) and share the goal of providing assistance to citizens, citizen groups and communities.

Riverways Programs' work across the state builds local capacity to achieve:

- Clean rivers—pollution prevention reduces clean up cost
- Natural Stream flows—providing the needed water to support healthy fisheries, aquatic life, recreational uses and community benefits
- Greenways and open space along rivers
- Protected wildlife along rivers enhancing native biodiversity

Riverways Programs include: Adopt-A-Stream Program, River Restore, Urban Rivers Program, Small Grants Program, Technical Assistance Team, Lake/Watershed Stewardship Program( *pilot*), and Heritage Rivers Program ( *pilot*).

*Pictures on cover (clockwise from left): Cohassee Brook, Southbridge; Millers River; Quequechan River, Fall River; Palmer River, Rehoboth; Sippican River, Marion.*

# RIVERWAYS PROGRAMS

## 2002 ANNUAL REPORT

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*Neponset River, Milton*

*Riverways recognizes that by protecting rivers, streams and adjacent lands, we are also protecting the unique character and livability of our communities. Protected and restored rivers and stream will bring tourists, anglers, hunters, birders and hikers to Massachusetts destinations. In addition, healthy rivers will provide exceptional outdoor recreational opportunities close to home for Massachusetts residents, contributing to the high quality of life so essential for attracting and retaining top-notch employers and workers and for providing clean water for human health.*



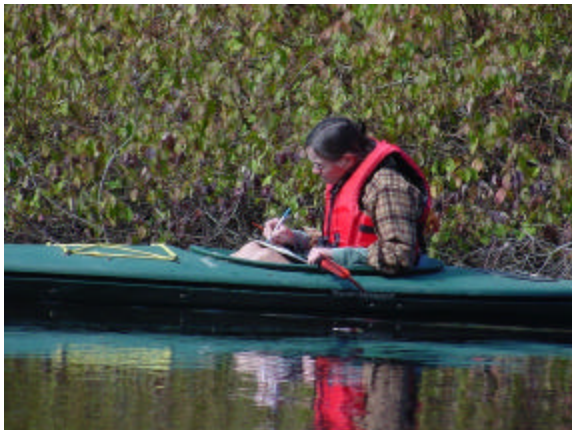
# I. *Adopt a Stream*

The Adopt-A-Stream Program works statewide to develop Stream Teams - groups of citizens, municipal officials, civic groups, businesses and others to protect and restore rivers close to home. Adopt-A-Stream staff support grassroots efforts to protect and restore rivers by providing training and materials to conduct visual Shoreline Surveys of streams and to facilitate the development and implementation of Action Plans. Working collaboratively with Watershed Initiative Teams in watersheds across the State, Adopt-A-Stream connects local Action Plans with resources available from state and federal programs.

Adopt-A-Stream staff provides outreach to groups and coordination by attending meetings and site visits, by telephone and by:

- maintaining a web page showing the work of 90+ Stream Teams;
- maintaining a GIS database of Shoreline Survey extents and coverages;
- working with Watershed Initiative teams to identify opportunities for existing and new Stream Teams to help complete local priority projects, and;
- publishing a newsletter for Stream Teams.

Funding for the Stream Team Organizer was provided as a statewide project by the Watershed Initiative for FY 2001-2; in FY 2003, funding is through individual teams.



*The Otter and Tully Stream Teams have continued to work with the Athol Bird and Nature Club on projects such as bioinventories of rare species on the river.*

*New canoe launch site developed by the Middleton Stream Team. Adopt-A-Stream staff and the Public Access Board met with the Middleton Stream Team to work to bring their new canoe launch onto the PAB system and coordinate work on any future sites in town.*



## **Achievements coming directly from the Shoreline Survey and Action Planning Process. In 2002 Stream Teams have:**

1. Built and upgraded canoe access sites
2. Created walking trails (greenways) and canoe trails (blueways)
3. Identified and certified vernal pools and rare species
4. Conducted inventories and studies of wildlife and habitat
5. Raised awareness about the stream and riparian areas
6. Created connections between municipal officials and citizens
7. Worked with municipal officials to combat pollution entering the stream through storm water pipes
8. Mapped surface water supply sources and their tributaries in order to protect present and future supplies
9. Involved EOE Team Leaders and agency staff in solving problems
10. Conducted water quality monitoring activities on their rivers
11. Educated school children about the local environment and provided a chance for outdoor learning
12. Created educational displays for public places in the community
13. Removed thousands of tires and tons of debris from rivers and riparian areas

## **NEW SHORELINE SURVEYS BY WATERSHED**

### **JUNE 2001- DECEMBER 2002**

*With support and training by Adopt-A-Stream staff, volunteers complete visual surveys to assess streams and create new constituencies to work for the rivers in their community. New Shoreline Surveys provide important baseline data on habitat, water quality, flow, debris and land use.*

#### **Blackstone River Watershed**

Middle River Stream Team with the Blackstone River Watershed Association  
Mumford River

#### **Boston Harbor: Neponset and Fore Rivers Watershed**

Canton River - Canton River Watershed Watchdogs  
Neponset Estuary - Friends of the Neponset Estuary  
Fore and Town Rivers - Fore River Watershed Association  
Weir River - Hull Stream Team

#### **Boston Harbor: Mystic River Watershed**

Aberjona River - Aberjona River Stream Team with the Mystic River Watershed Association

#### **French and Quinebaug Watershed**

Quinebaug River in Sturbridge - Sturbridge Stream Team  
Quinebaug River Tributaries - Southbridge Stream Team

#### **Mount Hope Bay Watershed**

South Watuppa Pond Tributaries - Bristol Community College in cooperation with the South Watuppa Assessment Network.

#### **South Coastal Watershed**

Herring River - Herring River Estuary Stream Team with North & South Rivers Watershed Association

#### **SuAsCo Watershed**

Assabet River, Cold Harbor and Howard Brooks - Northborough Stream Team in cooperation with the Organization for the Assabet River

#### **Taunton River Watershed**

Cotley River - Bristol Community College

#### **Ten Mile River and Taunton River Watershed**

Ten Mile River, Scotts Brook, Wading River - Wheaton College student surveys

#### **Connecticut River Watershed**

Pecousic Brook - East Longmeadow

#### **Chicopee River Watershed**

Moose Brook

### **TECHNICAL ASSISTANCE PROVIDED TO CONTINUING STREAM TEAMS FY 02 - DEC. 2002**

*After completing initial surveys, Stream Teams continue to advocate and work on behalf of their local streams. The Adopt-A-Stream Program works with groups to provide technical assistance and to direct access to state resources.*

#### **Boston Harbor: Alewife Brook**

Friends of Alewife Reservation

#### **Buzzards Bay**

Weweantic Stream Team  
Hands Across the River

#### **South Coastal: Stump Brook and Herring River**

Jones River Watershed Association  
Housatonic: Housatonic River  
Lenox/Lee and Stockbridge Stream Teams with support from the Housatonic Valley Association

#### **Millers: Otter and Tully Rivers**

Otter River Stream Team, Tully River Stream Team

#### **Charles River**

Cutler Park to Commonwealth Ave. Protection Group

#### **Nashua River**

Clinton Stream Team

#### **Ipswich River**

Middleton Stream Team, Topsfield Stream Team,  
Reading/North Reading Stream Team



## II. RIVER RESTORE PROGRAM

Massachusetts has jurisdiction over approximately 3000 dams, one for every three miles of river. The River Restore Program responds to requests from dam owners, municipalities, watershed groups and others to evaluate dams where removal may provide public safety, fishery, water quality or recreational benefits.

River Restore is dedicated to reconnecting natural and cultural river communities by selective removal of dams and other obstructions. River Restore is not a campaign to remove all dams. There are dams that may be serving a purpose that should be maintained.

Since 1999, River Restore has worked in partnership with private and municipal dam owners, state and federal agencies, and others to complete two pilot restoration projects located in the Berkshires and the South Shore that have improved habitat for trout and passage for alewife. River Restore staff are available for consultation on technical questions, fundraising strategies and regulatory requirements.

### FIRST IN MASS FOR MARINE FISH



*The Billington Stream Dam on Town Brook, Plymouth prior to removal.*

Town Brook is a prominent waterway and greenway in downtown Plymouth. Its steady, year-round flow and spring flush of alewives attracted and sustained Native Americans and colonial settlers. Today, they capture the imagination of school children, commitment of neighbors, and appreciation of saltwater sportfishermen during their annual spring run.

Over the course of two weeks in September 2002, the Army Reserves 368<sup>th</sup> Engineer Combat Battalion (Heavy) removed the remnants of a concrete fishway, excavated impounded sediments and clean fill of the earthen dam, and carefully placed "rounded rock" formations in the freshly uncovered streambed to create natural pools and riffles.

Removal of the "Billington Street Dam" in Plymouth, which improves upstream passage for alewives to several hundred acres of spawning grounds in Billington Sea, was made possible through the dedicated efforts of dozens of federal, state, and local partners who provided technical expertise, funding, and regulatory advice and support.

### TECHNICAL ASSISTANCE

River Restore Technical Assistant continues to build technical capacity and is developing methodologies and guidelines for sampling and managing impounded sediments, working in partnership with the U.S. Geological Survey with funding from the U.S. Environmental Protection Agency, and Massachusetts Departments of Environmental Protection, Environmental Management, and Watershed Initiative.

We have also developed a standard observation and reporting format for the River Restore Triage Team. This interdisciplinary Team of engineers, wetland ecologists, and fisheries biologists evaluate unsafe dams to compare dam repair versus removal options.

This work was financed partially with Federal Funds from the U.S. Environmental Protection Agency to the Massachusetts Department of Environmental Protection under Section 104(b)(3) of the Clean Water Act.

River Restore staff have participated on the Steering and Technical Committees of the Chicopee River Continuity Project, which evaluates roadway culverts and bridges for their potential to impede the movement and passage of fish and wildlife species. Staff provided input on the methodology and the "yardsticks" for designing river crossings that will provide "optimal," "general", and "minimum" conditions for aquatic and wildlife species movement and passage in and along rivers as they flow under roadways.

River Restore, in partnership with federal and state collaborators, will be developing a GIS-based analytical framework and rating system, the Index of Environmental Risk, to: (1) assess the environmental impact of dams on aquatic resources from their contributions to environmental degradation, and (2) characterize the environmental hazard to aquatic and other public resources from the uncontrolled breach or catastrophic failure of dams. Currently, Massachusetts dam safety



assesses the probability of hazard based on “loss or damage to life and property” associated with dam failure, limiting agency ability to consider impacts to natural resources. The Index of Environmental Risk is funded by the Massachusetts Environmental Trust’s New Horizons Program.

## **FUNDING AND SERVICES**

River Restore obtained and directed \$137,000 in U.S. Fish and Wildlife Service Cooperative Agreement funds toward river restoration projects in the Deerfield, Connecticut, and Westfield River watersheds.

River Restore has been assisting the Town of Becket and the Taconic Chapter of Trout Unlimited on the Yokum Brook restoration project. River Restore assisted them with raising over \$250,000 in federal, foundation, corporate and nonprofit grant funding toward the cost of removing Silk Mill Dam and breaching Ballou Dam for improving movement and habitat for trout and Atlantic Salmon.

River Restore has also worked in partnership with the North and South Rivers Watershed Association to raise \$35,000 toward the breaching of the Mill Pond Dam by the South Shore YMCA and development of a strategy to restore alewife to Third Herring Brook in Norwell and Hanover.

## **CORPORATE WETLANDS RESTORATION**

### **PROGRAM PARTNERSHIP**

River Restore is now working cooperatively with the Corporate Wetlands Restoration Program to develop projects and donors for aquatic habitat restoration projects. The Town Brook, Yokum Brook, and Third Herring Brook restoration projects have been approved to receive donations of funds and services through the CWRP.



*The U.S. Army Reserves Battalion (368<sup>th</sup> Engineer Combat Battalion-Heavy) removing the Billington Street Dam, September 2002.*

## **PROJECTS UNDER STUDY**

Restoration of anadromous fish to the Neponset River has been the subject of a study by the U.S. Army Corps of Engineers, under authority provided by Section 206 of the Water Resources Development Act of 1996, since 1998. The Department of Fisheries, Wildlife & Environmental Law Enforcement (DFWELE) has served as the non-federal sponsor of this study since 1999, with River Restore staff serving as Project Liaison. The 206 study provides a “blueprint” to make available seventeen miles of river spawning habitat, 4.34 acres of restored aquatic habitat, and 11.46 acres of restored riparian wetland habitat.

To complement the Army Corps study, River Restore is working cooperatively with the U.S. Geological Survey to characterize the amount and quality of sediment impounded behind existing and previously breached dams in the lower Neponset. River Restore is also managing a project to create a series of conceptual renderings that will be used to involve the public in the decision-making process relative to evaluating alternatives for fish passage at the two dams in Milton, Dorchester, and Mattapan.

River Restore is working cooperatively with NOAA Fisheries and the Massachusetts Division of Marine Fisheries to evaluate fish passage alternatives, including the feasibility of dam removal, on the Acushnet River in Acushnet. This study is funded by the New Bedford Harbor Trustee Council.



*Billington Street Dam site with bank stabilization after dam removal.*

### III. Urban Rivers Program

The urban environment presents unique challenges for river advocates working to make their rivers healthy. The Urban Rivers Program provides technical assistance on such urban rivers issues as: impacts from man-made channels and culverts, water quality conditions and remediation, how to reconnect neighborhoods with their river through the creation of open spaces, and revitalization options for urban waterfronts through increased access and recreational opportunities on rivers.

#### **BOSTON HARBOR PILOT: MYSTIC RIVER, MILL CREEK, CHELSEA RIVER**

The Urban Rivers Program initial funding was from the US Environmental Protection Agency who was interested in the concept of an urban-based outreach and assistance program. The Mystic River watershed was selected to pilot ideas and techniques in urban environmental remediation. This area has both historical and ongoing environmental challenges including combined sewer overflows, toxic waste sites, ultra urban land use, and many low income and ethnically diverse communities. The area also had little if any environmental advocacy or awareness programs existing at the outset of the Urban Rivers Program pilot. In 2002:

- Worked with community partners to restore a degraded salt marsh and increase public access to and awareness of Mill Creek by facilitating boardwalk construction adjacent to public housing.
- Introduced at-risk youth enrolled in the YouthStar program to salt marsh ecology, environmental justice, and helped introduce neighborhood residents to the recreational opportunities of the creek by leading canoe excursions and participating in neighborhood festivals.
- Helped host community events to increase awareness of the water resources available in the community and create a vision for the creek.
- Using outside funding, created a brochure highlighting important historical events to accompany a map and walking tour of Chelsea River to increase visitation to the waterfront and appreciation of the creek's importance in history.
- Served on a Technical Advisory Committee, convened by the US Environmental Protection Agency, helping to produce a Comparative Risk Assessment for Chelsea and East Boston.

#### **URBAN RIVER FELLOWS**

The Urban River Fellowships pairs graduate students with projects sponsored by a community or group. Urban communities and groups request assistance for specific ongoing urban projects. Urban Rivers staff select the projects and make their work appropriate for students. Using outside funding, Urban Rivers' staff is able to offer a stipend to the students and provide individual guidance and assistance to each Fellow. In 2002:

- Provided urban communities with specialized technical assistance for on-going projects and graduate students with real world experience.
- Fellowships in this latest round included:
  - using GIS to help a community prioritize open space acquisition (Blackstone River),
  - creating greenways along urban waterways (Spicket River),
  - water quality trend analysis (Alewife Brook),
  - database creation (Runnins River); and,
  - wetland resource assessment (DEM Mt. Tom Reservation).
- Fellows presented their findings at the annual Urban Rivers Forum, transferring their lessons learned and useful products to attendees from across the state.



*Mill Creek in Chelsea: partnering to restore salt marsh and increase access for neighbors to this urban river.*



## URBAN RIVER GRANTS

Since its inception in 1996, the Urban Rivers Grant Program has awarded grants to 17 municipalities. Although there were no awards in FY03, in FY 2002, Urban Rivers Program grants were awarded to:

- Town of Adams: \$9,350 for Hoosic River Public Outreach Project focusing on revitalizing and remediating the river flowing through downtown Adams;
- City of Gloucester: \$10,911 for Habitat Restoration Study that produced the baseline information needed for the city to pursue additional federal funds for remediation;
- City of Lowell: \$ 15,000 for Shad Restoration Study;
- City of Lynn: \$10,000 for Bike to the Sea Trail that was matched by several other funding sources so the section of this universally accessible trail in Lynn could complete the design phase;
- City of Waltham: \$12,500 for Strategic Awareness and Use Plan that included charrettes and conceptual plan for revitalizing the downtown river reach, and;
- City of Westfield: \$2,225 for an Environmental Education River Tour Booklet to increase awareness of the Little River.

## EDUCATION AND TECHNICAL ASSISTANCE

1. On November 3, 2001 the 4<sup>th</sup> Annual Urban Rivers Conference in Fall River was hosted by Riverways Urban Rivers Program and the local environmental advocacy group Green Futures with 17 cosponsoring groups including EOEA, EPA Urban Environment Initiative, Save the Bay and Trustees of Reservations. The Keynote Speaker, William Warner, stimulated over 100 people in the audience to consider “daylighting” their rivers based on the success of the Providence River project. The plenary session was followed by six workshops and two field trips:

- Environmental Justice, Advocacy, Local Fall River Activities, Riverways/Urban River Fellows Presentations, Public Health and Rivers and Spicket River Greenway;
- Field trips to the SE Mass Bioreserve (led by Debbi Edelstein from TTOR), and one to Providence to see the daylighted Providence River.



### 4. East Boston

- Worked with Chelsea Creek Action Group on open space issues, designated port areas, oil spill preparedness, wetland impacts and regulation and Chapter 91 issues.

2. Chelsea Creek- Ongoing community project raising awareness of the creek through its history.
  - Intern hired to research history of the creek and draft a concise chronological history.
  - Urban Rivers staff convened a steering committee with elected officials, historians, planners and advocates to work on the project's outreach and tourist aspects.
  - Wrote, designed and printed the history brochure and walking map of the creek. (See appendix.)
3. Chelsea Creek – Continuing work on part of the Program's pilot area.
  - Served on the EPA's Comparative Risk Assessment Technical Advisory Team for Chelsea and East Boston.
  - Trained at-risk youth on ecological restoration and function, festivals, informational brochures and presentations, environmental justice and public health issues.
  - Trained and carried out ecological assessments with ROCA YouthStar members in Chelsea.
  - Helped organize community festivals and provided on the water recreational opportunities.
  - Active partner in the Mill Creek Restoration Initiative working on salt marsh restoration, public access, and remediation issues.

*Riverways Urban Rivers staff, Watershed Team Leader and Housatonic Valley Association representative meet for site visit on the Housatonic River in Pittsfield.*

## IV. Technical Assistance Team

Understanding the functions of watershed ecosystems and details of water resource regulations is key to protecting rivers of the Commonwealth. Riverways Technical Assistance Team provides assistance to citizens, municipalities and watershed based groups in the following areas:

*Rivers Advocate:* River corridor protection, streambank restoration, public access, recreation and ecological integrity

*Stream Ecologist:* Water quality and environmental regulations, laws and statutes

*Watershed Ecologist:* Water quantity, aquatic habitat and instream flow.

*Russ Cohen with volunteers on the Sippican River in Marion, MA*



### *Highlights of these programs in FY 2002.*

#### **RIVERS ADVOCATE**

*River corridor protection, streambank restoration, public access, recreation and ecological integrity.*

- Supervised consultant's work and provided extensive editing and other substantive contributions to the printed and on-line versions of the *Shawsheen River Watershed: A Guide to Recreation* map, two products that have been universally well-received by the public and serve as a model for similar maps in other watersheds;
- Provided extensive comments on the draft Ipswich River Watershed Management Plan and the draft Regional Water Conservation plan for the Ipswich River Watershed, proposing creative and workable solutions for restoring a more natural streamflow regime in the Ipswich River while continuing to meet the needs of communities obtaining water supply from the Ipswich watershed;
- Gave a presentation and prepared supporting documentation (now posted on Riverways' web page) at the Mass. Association of Conservation Commission's 2002 Annual Meeting on the functions and values of naturally vegetated riparian buffers along rivers and other surface waters;
- Provided technical assistance to many citizens and groups statewide in the interpretation and effective implementation of the Wetlands/Rivers Protection regulations, provided extensive comments to DEP in its proposed modification of the regulations (which were finally promulgated at the end of 2002), and assisted EOE in its review of several proposed "Densely Developed Areas" under the Rivers Protection Act
- Continued to serve a key mediating role as the Chair of the Connecticut River Streambank Erosion Committee, promoting the use of "bioengineering", an environmentally benign method of streambank stabilization utilizing plant materials instead of riprap and other "hard" treatments, to address exacerbated erosion conditions caused in part by hydropower operations; and
- Provided extensive editorial and other substantive comments on the draft Connecticut River Watershed Action Plan being prepared by the UMass Department of Landscape Architecture and Regional Planning.

*Inlet to Town River, Quincy*



## STREAM ECOLOGIST

*Water quality and environmental regulations, laws and statutes*

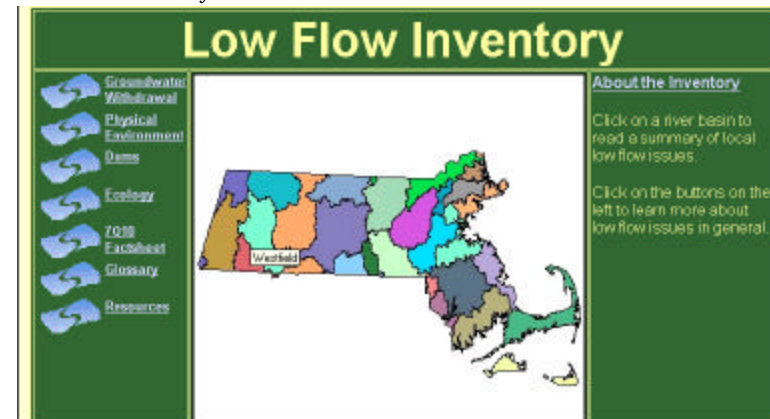
- Provided citizens with concrete answers about issues ranging from point and nonpoint sources of pollution including extensive help with the Clean Water Act's National Pollution Discharge Elimination Program (NPDES) permit system and Phase II Stormwater
- Helped watershed groups start, augment and improve their volunteer-based water quality monitoring including help with training, study design, quality assurance project plans development and oversight.
- Served on inter-agency efforts to restore the Rumney Marsh ACEC, assist CZM with review of Coastal Pollution Remediation grant requests.
- Provided training and technical review on the MEPA process, environmental regulations, the Wetland and River Protection Acts, and general river and watershed ecology.
- Provided assistance to the Nashua and Millers River Watershed Teams on hydrologic studies and water budget projects
- Assisted with five year management plans for Nashua, North Coastal, Merrimack and Narragansett Watershed Teams.

## WATERSHED ECOLOGIST

*Water quantity, aquatic habitat and instream flow. Focusing on maintaining and restoring natural stream flows and critical aquatic habitats.*

- Developed the Massachusetts Low Flow Inventory, a series of educational web pages describing known and suspected streamflow problems in each watershed of the Commonwealth. Created website so that information is available to all: [www.state.ma.us/dfwele/RIVER/rivLow\\_Flow\\_Inventory/home.html](http://www.state.ma.us/dfwele/RIVER/rivLow_Flow_Inventory/home.html)
- Created a program description for the River Instream Flow Stewards (RIFLS). This program will provide much needed technical assistance to help local river advocates document streamflows in order to advocate for streamflow protection and restoration. (Applied for grants to fund program.)
- Collaborated with the Division of Fish and Wildlife on Target Fish Community analyses for the Ipswich and Housatonic Rivers, a process which sets restoration goals for freshwater fish communities.
- Worked with EOEa Ipswich, Boston Harbor (Neponset), and Chicopee Watershed Initiative teams, local citizens, and watershed associations to identify, develop, and manage habitat, water conservation, and hydrologic projects and proposals.
- Technically reviewed Water Management Act, Interbasin Transfer Act, and MEPA materials for projects that have the potential to affect critical aquatic habitats and biological diversity.

*Low Flow Inventory Website*





## V. Small Grants Program

Since 1987, Riverways Small Grants have sown the seeds of river protection across the Commonwealth by enabling habitat restoration, mapping and purchase of riparian lands, increased public access, inventories of fish and wildlife populations, enhanced watershed stewardship and constituency building. Although small in dollars (from \$500 to \$10,000), Small Grants initiate actions that continue well beyond the initial funding and create partnerships among volunteers, municipalities, local businesses and others.

The Small Grants focus on specific tasks that will advance river protection and restore wildlife and fisheries habitat through permanent green corridors along riverways and healthy stream flows.

The strength of the Small Grants is their ability to:

- leverage matching funds and/or in-kind and volunteers services;
- initiate action that continues after the grant is completed;
- produce products that are shared with groups working on other rivers;
- encourage cooperation among organizations, business, watershed Stream Teams, watershed associations, government entities, educational and citizen groups.

Riverways expects to award FY 2003 grants to municipalities and non-profit organizations by the end of December. New and established groups have been very vocal about how needed these funds are on a yearly basis. (Since the program's inception in 1987, Riverways has awarded 78 grants to watershed associations, communities, RPAs and other groups in 21 watersheds.)

*Volunteers working on bioinventories on the Millers River funded through a 2002 Riverways Small Grant.*



### ***Small Grants in 2002:***

#### **HABITAT RESTORATION & PROTECTION**

Athol Bird and Nature Club: \$4800 for Photo-Documentation Pilot project to monitor and access habitat along the Tully River and for their Bioinventories and Enhancing River Access Project along the mainstem of the Millers River, the Otter River and the Tully River (match of \$7040 and 90 volunteer hours)\*.

Deerfield Millers Chapter of Trout Unlimited: \$5000 for the Atlantic Salmon Egg Rearing Project (match of \$5000).

Friends of Alewife Reservation: \$2000 to conduct Habitat Surveys for the Alewife Reservation (match of 200 volunteer hours).

Lowell Parks and Conservation Trust: \$6375 for their Concord River Alewife Restoration Project to restore alewife to the Concord River (match of \$13,710 and 262 volunteer hours).

Southeastern Massachusetts Chapter of Trout Unlimited: \$879 for their Satucket River Restoration Project (match of \$272 and 84 volunteer hours).

Town of Becket: \$10,000 towards the breaching or removal of the Ballou and Silk Mill Dams along Yokum Brook ( match of \$77,000)

Town of Manchester: \$2000 for the Saw Mill Brook Smelt Habitat Restoration (match of \$16,400 and 100 volunteer hours). Increased habitat and protection.

*Since 1987, Riverways Small Grants have sown the seeds of river protection across the Commonwealth by enabling habitat restoration, the mapping and purchase of riparian lands, increasing public access, inventories of fish and wildlife populations, enhanced watershed stewardship and constituency building.*

## **INCREASED ACCESS AND PROTECTION**

Groundwork Lawrence: \$8000 towards the Spicket River Greenway Project (match of \$17,500).

North & South Rivers Watershed Association: \$5000 for North River Mapping Project (match of \$ 1,750 and 100 volunteer hours).

Sippican Land Trust: \$4650 to support the Sippican River Access Project and land purchase (match of \$19,000).

Town of Rowley: \$10,000 towards the Pingree Farm Acquisition along the Mill River in the Parker River Watershed (match of \$855,974).

*\*Volunteer hours are projected at \$16/hr using the EPA standard.*

## **CONSTITUENCY BUILDING AND COMMUNITY AWARENESS**

Connecticut River Watershed Council: \$3296 towards their Connecticut River Watershed Fisheries Restoration Program (match of \$5000).

Fore River Watershed Association in collaboration with the Weir River Watershed Association and the Neponset River Watershed Association: \$8000 for constituency building including a web page (Fore River), brochure (Weir River) and Revisions to the "Explorer's Guide to the Neponset River Watershed (Neponset River) (match of \$7560) .

Ipswich River Watershed Association: \$3000 for Stream Team capacity building (match of \$2780).

Great Barrington Land Trust: \$8000 to create a River Walk Raingarden to filter storm water at the entrance to the Housatonic River Walk in Great Barrington (match \$16,451 and 120 volunteer hours).

Saugus River Watershed Council: \$ 3000 for their Campaign to Address Illegal Dumping along the Saugus River and Town Line Brook. (match of \$ 11,000 and 1250 volunteer hours).

*Great Barrington Land Trust  
River Walk Raingarden during  
and after construction(right)*



## VI. Heritage River Program (pilot, new for FY 02)

In 2002, the Riverways Programs spearheaded the efforts to implement a pilot Heritage River Program in partnership with EOEA, DEM, SRPEDD and local partners. The Heritage River Program:

- celebrates and build upon the rich heritage surrounding the rivers of the Commonwealth;
- complements and supports ongoing efforts to protect the ecological health of river systems by bringing together the historical, recreational, cultural, ecotourism, economic redevelopment, and environmental interests on behalf of our working rivers;
- serves as a pilot for this new –as yet unfunded- initiative;
- develops partnerships including EOEA, DEM, DFWELE and other appropriate agencies, RPA's, local municipalities, river groups, historical commissions and societies, economic redevelopment and tourism interests, and;
- ensures that protected rivers serve as a basis for Massachusetts Ecotourism efforts.



*The Taunton River at Weir Village in Taunton.*

### TAUNTON HERITAGE RIVER PILOT PROGRAM

Recognizing that each watershed is unique, Riverways, in partnership with Senator Pacheco and SRPEDD, created a pilot Heritage River program to meet the special characteristics of the Taunton River Watershed. There are several components of this pilot program.

#### (1) **Locally based steering committee**

The heart of the Taunton Heritage River Program is the relationship between local partners and the river. The Steering Committee provides the base to bring various interests together. Representatives from Old Colony Historical Society, Historic Landscape Program (DEM), land trusts-Wildlands Trust of Southeastern Massachusetts and The Trustees of Reservations- Bristol County Tourism Council, the Chamber of Commerce of Fall River, the Taunton River Watershed Alliance, Taunton River Wild and Scenic River Study Committee, the Taunton River Team Leader, Riverways Programs, and SRPEDD bring their talents and experience to the Taunton Heritage River Program. The Steering Committee members oversee the program by advising the contractor on approaches to promote local involvement and regional collaboration; reviewing and approving materials produced; and providing constructive and reflective evaluation of the pilot.

(2) **Small grants program** administered by the Southeastern Regional Planning and Economic Development District (SRPEDD) designed to promote work to restore or create recreational access, protect historic landscapes, promote environmental protection, and encourage eco-tourism.

#### *Cultural Enrichment:*

Natural Resources Trust of Bridgewater- Titicut Conservation Area: developed a stewardship plan for conservation lands, including the 32 acre Titicut Conservation Area.

#### *Public Access and Recreational Development*

Town of Freetown: hired an engineer to design a handicapped accessible boardwalk at the shoreline edge of the Assonet River.

#### *Outreach & Education*

Middleboro/Lakeville Herring Fisheries Commission: Developed an informational kiosk describing both the life cycle of the herring and historical importance of Oliver Mills.



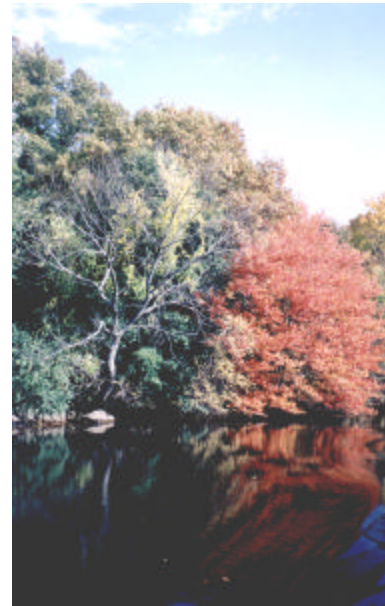
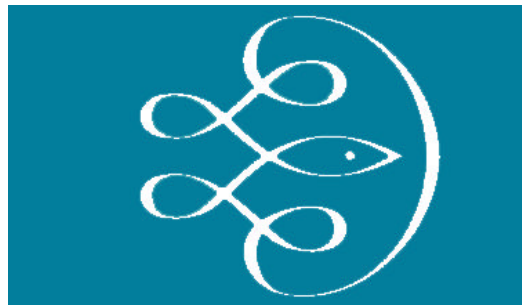
Weir Corporation- City of Taunton- Weir Riverfront Park: Developed an additional pathway, viewing area at the river's edge to the existing riverfront park.

Green Futures, Inc. Developed public outreach, photo contest, cable programming, video and curriculum.

(3) **Charrette or visioning workshop** to bring watershed residents and municipal officials together to describe the river, its resources and its meaning for its communities and to help fulfill the objectives of the program

On March 16, the Taunton Heritage River Program brought together over 40 Taunton River Watershed residents for a visioning workshop. Members of Taunton River Watershed Alliance, the Taunton River Wild and Scenic Study, naturalists and archaeologists, historians, and city and town officials participated in the workshop. Participants ranged in age from 5 to 85 and represented communities from the headwaters to the mouth of the river. Organized by SRPEDD, Riverways and the Steering Committee, the workshop provided a forum for sharing stories about the river, creating a vision for the future of the river, and networking. One unique goal of the workshop was to provide graphic artists with inspiration and visual images for the creation of a community-based logo, brochure and signage. Signage will be placed at locations including the completed projects funded by the grant program.

(4) Development of a **logo/signage system based on a local design charrette** From the visioning workshop—the words of participants, their photographs and pictures, their historical reminences, the graphic artist created the Taunton Heritage River Logo. The logo reflects the fluidity, the connections that people felt the river brings them. It depicts fish, also mentioned by participants, representing the wildlife in the river and its corridors. The shape of the logo also brings to mind the silver and ironworks that came out of the mills powered by the river.



*Taunton River*

(5) **Creation of a map and brochure** that will bring residents and tourists to the significant sites along the river.

The pocket map described 31 sites identified at the visioning workshop. In addition, the map, which folds to 2x3 inches, includes information on each of the sites on the river and its natural and historical resources. For additional information resources, the map includes watershed partner emails. (*see appendix*)

(6) **Interagency collaboration**

The Program has involved agency staff in varied ways. DEM archeologist Tom Mahlstedt attended site visits of all the proposed grant funded sites to ensure that work would not harm the valuable Native American and colonial artifacts. The Director of the Public Access Board, Jack Sheppard, evaluated potential access sites with members of the Steering Committee. The Small Grants Review Committee consisted of SRPEDD, Patrice Kish of DEM, Joan Kimball of the Riverways Programs and Karl Honkonen of EOEA. Commissioners Peters (DFWELE) and Webber (DEM), Senator Marc Pacheco and the Mayor of Taunton were among the features speakers at the Awards Ceremony in November. In Summer 2002, Secretary Durand unveiled the pocket map at the opening of the SE Bioreserve.

*The new Taunton Heritage River Logo was created at a visioning session attended by citizens of the watershed. The logo reflects the many uses and values of the river.*

## VII. Lake/Watershed Stewardship Program (2002 Pilot)

*Funded entirely by federal funds, this new pilot has designed a model for citizens to begin to restore the 700 lakes listed as having impaired water quality. Riverways has developed and piloted the Lake/watershed Stewardship approach that will be continued by nonprofit partners.*

Funded by Federal Clean Water Act Funding under s. 319 and based on the successful Adopt-A-Stream Program, DEP and Riverways are bringing together lake groups, residents on tributaries to lakes, town officials, sportsmen, and recreational users in a pilot program. Integral to Secretary of Environmental Affairs Bob Durand's Lake and Pond Watershed Initiative, this pilot has funding and support from DEP's 319 Nonpoint Source Program, is partnering with DEM's Lakes and Ponds Programs, and has the support of a Technical Advisory Committee of experts from state agencies and nonprofit organizations.

Riverways is developing the Lake/Watershed Stewardship Program through two major components:

- 1.) Developing and field-testing watershed survey methods with a series of pilot surveys on TMDL lake watersheds statewide, and;
- 2.) Coordinating a Train-the-Trainer program to share these methods and protocols with nonprofit partners around the Commonwealth.

Twelve months into the eighteen-month pilot stage, the Lake/Watershed Stewardship Program has conducted six Watershed Survey Training Workshops with almost 100 volunteers, resulting in surveys of 13 lakes and ponds and sections of 23 rivers and streams. Two nonprofit partners are currently in training through the recently launched Train-the-Trainer program. Spring 2003 will see more surveys and continuation of the Train-the-Trainer program to the eastern watersheds.

The Clean Water Act requires the states to develop TMDLs (Total Maximum Daily Loads) for impaired water bodies. For lakes and ponds, these TMDLs focus on nutrient loading and recommend volunteer watershed surveys to find pathways for pollution. By participating in these surveys, residents and town officials are taking a vital step to utilize the TMDL plans into a successful tool for restoration and protection.

In addition to surveying the TMDL Lake watersheds, Riverways Lake/Watershed Stewardship staff facilitates action plan-

ning meeting to help residents turn their results into an action plan for better restoration and protection. The action plan and other important information from the survey are compiled in Watershed Survey Report that can be used by Conservation Commissions and other planning authorities, DEP and other state agencies, and by the survey participants themselves in seeking funding to implement remediation plans.

### PILOT WATERSHED SURVEYS

#### BLACKSTONE LAKES AND PONDS -SPRING – SUMMER 2002

Starting with a "linked-lakes" project in the Mill Brook Watershed, the Indian Lake Watershed Association, the Mill Brook Task Force and the Blackstone Headwaters Coalition brought together residents interested in protecting area waterbodies. Covering the entire watershed of Salisbury Pond and Indian Lake (connected by Mill Brook), volunteer surveyors inspected the shorelines of the lake, pond and streams, as well as the upland watershed area to determine the sources and pathways of nonpoint source pollution. Following their survey, the steering committee brought together survey volunteers, watershed association leaders, members of the Conservation Commission and the City Council, as well as staff from the DPW and the Mayor's Office for an action planning meeting. Facilitated by Riverways, this knowledgeable and energetic group was able to take the results of their comprehensive watershed survey and create a detailed action plan for ways to achieve the protection and restoration of these water bodies. By involving officials from a variety of boards, representatives from the Mayor's office and State Representative's office, citizens and officials had an opportunity for frank discussion of water issues and for consensus on actions and next steps.

***Modeled on the Adopt-A-Stream Program, the purposes of the pilot Lake/Watershed Stewardship Program are to provide citizens with the tools to identify the root causes of lake and pond water quality problems and to facilitate planning leading to improved watershed protection. Because surface runoff brings in the largest amount of pollution to the lakes and streams, volunteers look at the watersheds to find the sources of pollution.***

For the second pilot, the Lake/Watershed Stewardship Program assisted with a survey of the Dorothy Pond / Broad Meadow Brook Watershed, a multi-town watershed with an interesting mix of urban areas, suburban neighborhoods and protected conservation land. For this survey, the steer-

ing committee brought together new partners — Millbury's Dorothy Pond Restoration Committee and the staff and volunteers from Massachusetts Audubon Society (MAS) Broad Meadow Brook Sanctuary. Donna Williams, Conservation Advocacy Director for Broad Meadow Brook, and Lynne Welsh, EOE Team Leader for the Blackstone River Watershed, contributed to an information session on watershed ecology and watershed management efforts in the Blackstone basin. The upstream-downstream partnership led to a thorough watershed survey of both the Worcester and Millbury areas, and to insightful action planning meetings that mapped out an agenda to ensure greater communication across municipal lines as well as providing important projects to protect and restore Dorothy Pond and Broad Meadow Brook.

A third pilot brought the Lake/Watershed Stewardship Program and the Adopt-A-Stream Program together for a joint survey. As the Lake Watershed Stewardship Program worked with Auburn and Leesville residents to plan a lake watershed survey for the Leesville Pond Watershed, Adopt-A-Stream began work with downstream residents and the Blackstone River Watershed Association leading to a Shoreline Survey of Quinsigamond Village's Middle River. Both parties requested to band together and conduct their surveys in collaboration. After a series of joint steering committee meetings to plan the training map out the survey sections, Riverways staff trained all of the volunteer surveyors in both Adopt-A-Stream Shoreline Survey methods and Lake/Watershed Stewardship methods. Each group learned about issues of ponds and streams and became aware of upstream and downstream effects. Survey participants are currently working on implementation of their action plan, including site visits to problems areas identified in the survey.

*Salisbury Pond, Worcester.*



*Steering Committee for Indian Lake reviews maps as part of the survey planning.*

## FALL 2002 WATERSHED SURVEYS

Field-testing survey methods with pilot watershed surveys has continued with new surveys for the Mill River – Lake Warner Watershed and the Leverett Pond Watershed, both in the Connecticut River Watershed, and the Lake Boon Watershed in the SuAsCo Watershed (Sudbury, Assabet and Concord Rivers).

With support from Riverways staff and local leadership of Dave Ziomek of Hadley's Valley Land Fund, watershed residents and municipal officials came together to form a large and energetic steering committee to plan a Mill River – Lake Warner Watershed Survey. With concerns ranging from urbanized downtown Amherst to possible impacts from rural Hadley, Leverett and Shutesbury, the Mill River Watershed is a fascinating case study of a watershed with multiple land uses. Lakeshore residents, UMass students, and Hadley town officials alike are plunging into the survey effort.

In Leverett, again with support of Riverways staff, members of Friends of Leverett Pond and local officials are collaborating in a watershed survey that they hope will prepare them for pursuit of a 319 Nonpoint Source grant application for Leverett Pond.

The third Fall pilot group finds Riverways staff working with Lake Boon Association and Lake Boon Commission to bring residents and town officials from Hudson and Stow together for the Lake Boon Watershed Survey. Volunteer leaders of the Lake Boon Association have played a key role in organizing and publicizing this important effort.

## TRAIN THE TRAINER

Riverways is recruiting and training nonprofit partners in the protocols and methods of the Lake/Watershed Stewardship Program. Through this effort Riverways will expand the region serviced by qualified trainers, ensuring assistance to citizens near the commonwealth's many impaired lakes and ponds. Launched this fall, current participants in the program include the Lakes and Ponds Associations of Western Massachusetts (LAPA-West), which services lakes and ponds west of the Connecticut River, and Massachusetts Water Watch Partnership which offers trainings and support services for volunteer water quality monitoring groups statewide.

***Through the Train the Trainer Program, this pilot program will be continued by nonprofit organizations.***



## VIII. Watershed Initiative

Initiated in 1993-4 through the Neponset River Watershed Initiative, the Executive Office of Environmental Affairs' Watershed Initiative is a broad partnership of state and federal agencies, conservation organizations, businesses, municipal officials and individuals. The Watershed Initiative seeks to protect and restore natural resources and ecosystems on a watershed basis. Watershed teams, made up of representatives of governmental agencies and community partners (non-profit organizations, municipal boards, and businesses), coordinate the watershed protection efforts in each of the 27 major watersheds of Massachusetts.

The primary goals of the Watershed Initiative are to: improve water quality; restore natural flows to rivers; protect and restore habitats; improve public access and balanced resource use; improve local capacity to protect water resources; and, promote shared responsibility for watershed protection and management. Riverways staff advise the Commissioner on the Watershed Initiative, serve as liaison between the Department and the Watershed Initiative, and serve on all the Watershed Initiative Teams across the Commonwealth. In addition, Riverways Programs oversees projects initiated by the teams.

### TEAM MEMBERS

Riverways Programs staff serve as liaisons for the program and the department at regular watershed team meetings, networking resources for local organizations and coordinating work with other EOEA agencies.

### IWRC AND WISC PARTICIPATION

Riverways Programs staff have been active participants in the Watershed Initiative since its inception. Staff serve on the Watershed Initiative Steering Committee (WISC), its executive committee, the Interagency Work Plan Review Committee (IWRC) and, as needed, on EOEA agency ad hoc committees.

*Due to the low flow problems on the Ipswich River, the Watershed Initiative and Riverways have been working on projects to address community water use.*



## PROJECTS IN FY02

In FY2002, Riverways Programs agreed to administer and oversee nine watershed initiative projects with funding provided through the Environmental Bond. Oversight included writing scopes for each project, posting Requests For Responses, holding a bidders conference, selecting vendors, and overseeing and managing the projects.

Outreach and education projects for the **Shawsheen and Ten Mile Watersheds**. "The Shawsheen River Watershed: A Guide to Recreation" was published summer 2002. In addition to the brochure, an interactive map is available on-line <http://shawsheen.org/recmap>. The documents have been so well received that they will serve as a template for other watersheds across the state. In the Ten Mile, an outreach poster was produced. In addition to outlining resource protection priorities, the poster features local photographs of the resources as well as drawings of natural and historical resources from the journals of two members of the Ten Mile River Watershed Alliance who traveled the river from the headwaters in Plainville to Seekonk.

**Water conservation project for the Ipswich Watershed.** The Massachusetts Riverways Programs has hired the Ipswich River Watershed Association to create and implement water conservation projects throughout the watershed over the next two years. The project includes the development of a regional water conservation plan, facilitation of several meetings with water suppliers and other stakeholders, and implementation of the media/ public relations campaign.

**Herring Count project for the North Coastal-Parker Ipswich.** The goal of this project is to conduct a regional, intra-watershed project to monitor alewives and blueback herring in the Little River, Gloucester; Essex River/Alewife Brook, Essex; Ipswich River, Ipswich; and the Parker River, Newbury and Georgetown for the spring, 2002 and 2003 river herring runs. In addition, outreach will be done in the Saugus River Watershed, volunteers will be organized and trained, and a new fish count will be conducted in 2003 in conjunction with the established runs.

**Stormdrain stenciling project for the Connecticut** The Connecticut River Storm Drain Education Coordinator worked with local organizers including Conservation Commissions, Departments of Public Works (DPWs), Eagle Scouts, college students and local residents to organize storm drain education activities. The Coordinator also developed a toolkit called the Storm Drain Education Notebook that includes outreach materials, fact sheets, background and other materials municipalities and civic organizations can use to implement a storm drain-stenciling program in their local community. As a result of these efforts, the Franklin, Hampshire, Hampden Conservation Districts applied for funds through the Northeast Utilities Environmental Community Grant to reproduce the toolkit and to distribute it to all of the communities in the Connecticut River Watershed.

**Dam removal manual for the Connecticut** This project is in the process of assembling a manual that not only details the regulatory and technical processes involved with removing a dam, but also addresses the social, cultural, and environmental issues surrounding dam removal. This manual will be a companion piece to the Connecticut River watershed Council's community based dam removal manual.

**Environmental art project for the Hoosic.** In an effort to address stormwater and habitat concerns, Riverways is working with MASS MoCA and five environmental artists to generate designs for "environmental art" projects that interact with the water flowing on and/or through the MASS MoCA complex. The designs will mitigate stormwater runoff and/or restore habitat to the channelized portions of the rivers, serve as artistic installations, and provide insight into river ecology.



*Volunteer participates in culvert survey in the Chicopee River Watershed.*

**River Continuity Project in the Greater Connecticut Basin.** This project is aimed at reducing impediments to passage and movement of fish, wildlife and other aquatic life in the greater Connecticut Watershed. UMass Amherst, in conjunction with Riverways River Restore Program, have been working to evaluate roadway culverts and bridges for their potential to impede the movement and passage of fish and wildlife species.

**Riverways Adopt-A-Stream Stream Team Organizer** was funded for FY 2002 by the Watershed Initiative as a statewide project working in specific watersheds as outlined by the watershed teams.

**Department projects (DFWELE)for FY2002 include:**

- Marine Fisheries Anadromous Fishway Coastwide Survey
- Division of Fish and Wildlife Fisheries Habitat Surveys
- Buzzards Bay Vernal Pool Project
- Public Access Initiative in the Parker and Housatonic

## IX. **Wild and Scenic Rivers:** *Protecting National treasures*

The Wild and Scenic Rivers Program is a Federal Designation that was established three decades ago. The Wild and Scenic River system has 163 designated rivers including six in New England and two in Massachusetts –the Westfield River and sections of the Sudbury, Assabet and Concord Rivers (SuAsCo). In Massachusetts both the SuAsCo River segments and the Westfield River segments have coordinated management between the National Park Service and the partnership committees –in the one case the SuAsCo River Stewardship Council and in the other by the Westfield River Wild and Scenic Citizens Advisory Committee, which is comprised of representatives from local, state and federal governments, and advocacy groups. Riverways staff (Joan Kimball) continues to represent the Commonwealth on each of these committees. A Wild and Scenic Study is underway for the Taunton River; Joan Kimball is a member of the Taunton River Wild and Scenic Study Committee.

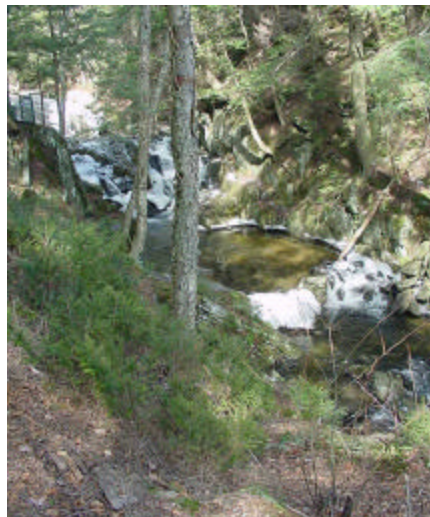
### **WESTFIELD RIVER WILD AND SCENIC ADVISORY COMMITTEE**

The Advisory Committee [comprised of representatives and alternates from the towns, the Commonwealth (Joan Kimball and Mike Parker/John O'Leary), PVPC, WRWA and TTOR] is working to:

- raise awareness about this remarkably outstanding river;
- respond to town interest in expanding the designated sections by performing Shoreline Surveys by townspeople for all the proposed sections, reviewing proposals, making site visits and determining which additional sections are appropriate;
- implement a DEM grant to conduct an inventory of trails in the Wild and Scenic sections and a grant from Silve O. Conte to provide a landowner stewardship brochure.

Because this Wild and Scenic designation was through the state and local process (2Eii)—and not through Congressional designation—there can be no federal funding for this river. The Committee is seeking funding from the state, from local partners and from grants.

*Windsor Jambs on the Westfield River*



### **SUASCO RIVERS**

Representing the Commonwealth Riverways staff served as major partners in the SuAsCo Wild and Scenic Study and currently participates in the River Stewardship Council that serves to implement the Action Plan. The Council was created by the Action Plan and by Memorandum of Understanding by all the partners.

The SuAsCo River Stewardship Council brings together key partners for the purposes of providing long-term management and protection of the designated river sections to ensure sustainability of the outstandingly remarkable values of the river including ecology, archeology/ history and literature, recreation, scenery. Issues that the Council has addressed in 2002 include:

#### *Ecology:*

- Water conservation education advocacy
- Water quality education and review
- MEPA notification

#### *Recreation*

- Public Access

#### *Scenery:*

- Bridges –ensuring that reconstruction continues to enhance the scenic qualities of the river

#### *Public outreach and education leading to protection of resources*

- River Festival, May 30-June 2- Events by all partners along the river
- Biodiversity events- Educational events/publications/links to schools

Members of the Council include representatives and alternates from the 8 towns in the Wild and Scenic corridor, USFWS, NPS, OAR, SVT and the Commonwealth. Joan Kimball, Riverways Director and Mike Fleming, Team Leader, Former State Senator Cile Hicks and Deirdre Menoyo represent the Commonwealth.



## TAUNTON WILD AND SCENIC STUDY COMMITTEE

To implement the October 2000 Taunton River Wild and Scenic Study work plan, the Study Committee is working to determine the current condition of the river, to establish outstandingly remarkable values that enable it to be designated and to create a management plan. To date the program has accomplished the following:

- Established an 88 page interactive web page
- Created GIS watershed tools to analyse land use, flow directions, and create base maps showing landowner parcels, ecology, public access, and agriculture,
- Created a public outreach committee
- Started planning for a management plan.

Members of the Study Committee include four representatives from each of the towns, representatives from TRWA, Wildlands Trust, DFW, Joan Kimball, Riverways, Pat Rogers, Watershed Team Leader, National Park Service. Staffing is provided by SRPEDD. Joan Kimball chairs the public outreach committee.



*Taunton River*

*Volunteers work to clear the Cordingly Dam Fish Ladder on the Charles River in Newton.*



## **X. Fishway Stewardship Program**

The Division of Marine Fisheries and the Riverways Programs launched the Fishway Stewardship Program in the spring of 1994 to improve local herring runs through citizen participation. Twelve active groups joined the pilot Program; their activities have ranged from fishway maintenance and repair to fish counts and surveys. Riverways takes the lead in promoting and administering the Program. The Division provides technical guidance to volunteers to ensure that fishways are functioning properly and that anadromous fish are reaching their spawning grounds with a minimum of difficulty.

There are over 100 fishways on coastal streams in Massachusetts. The Division is completing a coastwide survey of anadromous fish runs, fishway conditions, and obstacles to up- and down-stream passage. Local interest in recording observations about the return of herring to coastal streams during their yearly spawning runs is growing.

Riverways staff served as liaison to new and established volunteer fish counts in watersheds on Massachusetts' North Shore. In particular, staff provided technical assistance to a new count on the Concord River and to an effort to standardize the observation, reporting, and data interpretation techniques using counts on the Parker, Ipswich, Little, and Essex Rivers.

## **RIVERWAYS PROGRAMS STAFF**

### **Operational Funding**

Joan C. Kimball

*Director*

Patricia Sheppard

*Assistant Director*

Rachel Calabro

*Adopt-A-Stream Coordinator*

Russell A. Cohen

*Rivers Advocate*

Cindy Delpapa

*Urban Rivers Coordinator and Watershed Ecologist*

Karen I. Peltó

*River Restore Coordinator*

### **Special Funding**

Carrie Banks

*Stream Team Organizer-Western Watersheds*

Christopher Carney

*Lake Watershed Program Coordinator*

Eileen Goldberg

*Grants Administrator*

Margaret Kearns

*Watershed Ecologist*

Michael Merrill

*River Restore Technical Assistant*

Amy Singler

*Stream Team Organizer*

## **XI. Appendix**

**A. ADOPT-A-STREAM CASE STUDY- NORTHBOROUGH STREAM TEAM**

**B. RIVERS PROGRAM STAFF STANDING COMMITTEES, PUBLICATIONS AND CONFERENCE ATTENDANCE**

**C. CHELSEA CREEK HISTORY BROCHURE- URBAN RIVERS PROGRAM**

**D. TAUNTON HERITAGE RIVER BROCHURE**

*Castle Hill, Ipswich*





## Appendix A: Adopt-A-Stream Case Study

### FISCAL PARTNERSHIPS FOR THE RIVER AND FOR THE COMMUNITY

By Riverways Staff

The Shoreline Survey process created by the Riverways Programs is community based with planning by the residents and municipal officials. As a result, each survey is unique. Riverways was proud to work with the Organization for the Assabet River, (OAR) and the Northborough Stream Team and the community. This case study summarizes the benefits of partnerships for both the river, its tributaries and for the Community. By mobilizing local support, providing residents and municipal officials with first hand experiences on the river, gaining support of community businesses, the Northborough organizers created a top-notch Stream Team, an outstanding Shoreline Survey, and a sound community-based Action Plan.

The Adopt-A-Stream process illustrates that forming a Stream Team, getting the community involved, and creating a blue print for protection and restoration activities can occur with a small amount of state funds. The Riverways'/state contribution for the Northboro Shoreline Survey and Action Planning Process included staff time of about 40 hours, travel, technical assistance, baseline maps, data sheets and Leaders Guides for a total state expenditure of just over 1,000 dollars. This initial investment by the Riverways Programs was able to leverage \$16,000 worth of additional services and funds including a grant obtained by the local watershed association Organization for the Assabet River from the Worcester Community Foundation (\$8,000), business contributions (\$1,200) and volunteer hours at \$16/hr (\$10,986).

#### **Total Value of Volunteer Hours and In-Kind Donations:**

<b>OAR Grant Award</b>	<b>\$8,000</b>
<b>681 hours x \$16.00/hour</b>	<b>\$10,896</b>
<b>In-Kind Donations</b>	<b>\$1250</b>
<b>Total Value thus far</b>	<b>\$20,146</b>

### NORTHBOROUGH STREAM TEAM CASE STUDY 2002

#### Organization for the Assabet River

The Organization for the Assabet River (OAR) has derived considerable benefit from the work of Stream Teams in other parts of the Assabet watershed, (Maynard Initiative, Nashoba Brook and Fort Pond Brook Stream Teams). This positive history was the impetus for OAR to request support for the Northborough Stream Team from the Greater Worcester Community Foundation. The \$8,000 grant award was used to hire Maggie Kosovsky to be the Stream Team Coordinator.

#### Riverways Adopt-A-Stream Program

Adopt-A-Stream Coordinator, Rachel Calabro supported, guided and encouraged the Northborough Stream Team throughout the entire Shoreline Survey process:

- Formed a steering committee to include residents, municipal officials, OAR members and recreational users of and advocates for the river.
- Assisted the Steering Committee in planning the Survey
- Organized the training workshop, provided the individual section maps and training materials
- Conducted the Shoreline Survey
- Held the celebratory picnic lunch for Stream Team members, town officials, and state legislators (Senator Pam Resor and Representative Naughton both attended)
- Organized and facilitated the Action Planning Meeting
- Wrote the Action Plan/Shoreline Survey Report

*Volunteer completes Shoreline Survey Data Sheets on Howard Brook in Northborough.*



## **NORTHBOROUGH STREAM TEAM**

**By Maggie Kosovsky, OAR Stream Team Coordinator**

The overall goals of the Northborough Shoreline Survey were to 1) increase general awareness of the Assabet River and its tributaries in Northborough and 2) improve stewardship of the river in Northborough.

The narrower objectives of the project were to determine priorities for protection and restoration of the waterways in Northborough. To accomplish this goal, the Northborough Stream Teams surveyed approximately 7 miles of shoreline along the Assabet River, the Cold Harbor Brook and the Howard Brook. Over ninety volunteers collected data about the water conditions, the shoreline, the plants and animals, and the pollutants that affect those waterways on May 4<sup>th</sup>, 5<sup>th</sup> and 11<sup>th</sup>.

These volunteers were trained by Massachusetts Riverways "Adopt-A-Stream" Program staff on April 29<sup>th</sup> and then assigned to one of twenty sections of the shoreline in Northborough. They spent three hours walking or canoeing along that shoreline section in teams of 3-10 people, depending on the length and density of the their section.

The Stream Teams also collected information about the condition of the pipes and dams in their stream sections and documented these with photographs. This information will help the Town of Northborough comply with Phase II storm water regulations. The information that was collected has helped residents identify problems along the streams and river; recreational opportunities offered by the town's waterways; and will help the town improve the habitat for the fish and wildlife in the waterways.

The Northborough Stream Team members were a diverse group, including teachers, geologists, selectmen, birders, trail builders, botanists, engineers, and eagle scouts. They ranged in age from 8 years old to over 70, with some who were new to town and some who have been residents for over 50 years. The shoreline survey brought together people with very different backgrounds who shared a common interest in protecting and restoring the waterways. The diversity of expertise made the survey more successful.

The Stream Team project was strongly supported by the community. The Northborough government and its committees such as the Conservation Commission and the Open Space Committee felt that protecting and restoring the waterways was an important project, however, they had very little time or resources to

fund projects in this area. The Riverways Programs allowed Northborough to use residents as volunteers to complete the shoreline survey and to form an action plan that is now being implemented. For instance, the Conservation Commission had been struggling with how to best inform wetland abutters about the importance of buffers. The stream team action plan has proposed to help the Conservation Commission make a pamphlet including helping to write a grant for such a project.

Thanks to the training and technical support from the Massachusetts Riverways "Adopt-A-Stream" Program our Shoreline Survey has greatly improved awareness of the Assabet River and its tributaries in Northborough. We now have a core of concerned citizens working to restore and protect the waterways in town. In addition, we have improved communication between volunteer groups in town and the town committees and staff. Because Northborough stood to gain from this project (through compliance with the state's storm water regulations), the town government was very cooperative.

### **Northborough Stream Team Donations and Volunteer Hours**

**Volunteer Hours** (Total 681 @ \$16/hr = \$10,986)

There were 97 people who participated in the Northborough Stream Team effort that started in April 2002. The survey took approximately 3 hours to complete. Subsequent follow-up Action Planning meetings where volunteers reviewed their survey segments and set priorities for action yielded an additional 214 volunteer hours for a total of 681 hours of critical volunteer time.

**In-Kind Donations** (Total \$ 1250.00)

*Contributions were provided by many local business*

Festive Breads, Bagel Makers, Nicky D's Donuts, Honey Dew Donuts, Chet's Dinner, Starbuck's Coffee, A.J. Tomaolos, Lowes Meat Market , Brittney's Café, O'Driscols, Pickle Haus, Special Teas, Pat Bagg, Subway, Little M's, Monti's Pizza, Northboro House of Pizza, Trader Joes, Davidian Brothers, Stop and Shop, Victory Market, Boston Market, CVS/pharmacy, Rocky's ACE Hardware, Northborough Photo and Frame, Walmart, O'Brians, Kinkos, as well as the Massachusetts Riverways Programs, and the Town of Northborough.

## Appendix B: Standing Committees, Presentations & Publications

### INITIATIVES AND STANDING COMMITTEES

- Watershed Initiative - *All Riverways Staff Members*
- Interagency Work Plan Review Committee – *Joan Kimball and Patricia Sheppard*
- WISC –Steering & Executive Committees – *Joan Kimball*
- Watershed Initiative Evaluation Committee *Joan Kimball*
- Wild and Scenic Rivers – *Joan Kimball*
  - SuAsCo Rivers
  - Taunton River, upper and lower
  - Westfield River
- MA DEP Source Water Assessment Program Advisory Committee – *Russ Cohen*
- MA Division of Fisheries & Wildlife Nongame Advisory Committee Wildlife Habitat Group– *Russ Cohen*
- MA Instream Flow Task Force – *Russ Cohen, Margaret Kearns*
- MA EOEA Biodiversity Days – *Russ Cohen, Cindy Delpapa*
- MA Land Trust Coalition Steering Committee – *Russ Cohen*
- MA Water Resources Commission Stressed Basin Committee – *Russ Cohen*
- EOEA Environmental Justice Agency Committee—*Cindy Delpapa*
- EOEA Eco-Team – *Cindy Delpapa*
- EOEA Lakes and Ponds Watershed Action Strategy Implementation Committee- *Chris Carney*
- EPA Chelsea Creek Comparative Risk Assessment, TAC- *Cindy Delpapa*
- EPA Mystic River STORET – *Cindy Delpapa*
- NOAA/Connecticut River Partnership- *Karen Peltó*
- Volunteer Monitoring State Coordinating Committee – *Cindy Delpapa*

- Blackstone River and Canal Commission- *Russ Cohen*
- Blackstone River Conservation Alliance- *Russ Cohen*
- Hoosic River Ecosystem Partnership- *Russ Cohen*
- New England Stream Barrier Task Force- *Karen Peltó*
- Aspen Institute Dialogue on Dams and Rivers- *Karen Peltó*
- Ipswich River Dam Task Group- *Karen Peltó, Michael Merrill*
- Ipswich River Watershed Association Technical Advisory Committee- *Cindy Delpapa*
- Chicopee Barrier Inventory Steering & Technical Committees- *Karen Peltó, Michael Merrill*
- Runnins River Steering Committee- *Cindy Delpapa*
- Spicket River Initiative Partnership- *Cindy Delpapa*
- Blackstone River Valley National Heritage Corridor Streamflow Task Force - *Russ Cohen*
- Connecticut River Streambank Erosion Committee - *Russ Cohen, Chairman*
- Ipswich River Watershed Management Council – *Russ Cohen, Margaret Kearns*
- Quinebaug-Shetucket Rivers Valley Nat. Heritage Corridor Walking Weekend Committee - *Russ Cohen*
- Massachusetts Watershed Coalition Board- *Cindy Delpapa*
- Upper Housatonic Heritage Area Advisory Board – *Russ Cohen*
- OAR Technical Advisory Group – *Cindy Delpapa and Karen Peltó*
- OAR Quality Assurance Project Officer – *Cindy Delpapa*
- Greater Boston Urban Partnership – *Patricia Sheppard*
- Mill Creek Partnership – *Cindy Delpapa and Patricia Sheppard*
- Chelsea Creek Action Group – *Cindy Delpapa and Patricia Sheppard*
- Mass Bays Management Committee- *Cindy Delpapa*

### PUBLICATIONS

- Riverways Newsletter – *Rachel Calabro, Editor*
- Adopt-A-Stream Newsletter, *Amy Singler, Editor*
- Urban Rivers Newsletter- *Cindy Delpapa, Editor*
- Riverways Website- *Rachel Calabro, Amy Singler*
- Neponset Fish Project Website- *Michael Merrill*
- Low Flow Inventory Website- *Margaret Kearns*



*Taunton River*



## WORKSHOPS: PRESENTATIONS BY RIVERWAYS STAFF

- New England Watershed Roundtable – *Joan Kimball, facilitator; Cindy Delpapa, resource specialist*
- Historic Massachusetts: Rivers Workshop- *Karen Peltó, Joan Kimball moderator/organizer*
- DEM Aquatic Habitat Workshop- *Margaret Kearns*
- Community Preservation Institute: Case Study on the Ipswich River and classroom presenter - *Joan Kimball & Margaret Kearns*; Case Study on the Assabet River/Case Study on the Boston Harbor and classroom presenter – *Cindy Delpapa*
- EPA Stormwater Public Education/Involvement Workshop for Charles River Communities – *Rachel Calabro*
- Shoreline Surveys as a Watershed Action Tool: Presentation at Bristol Community College – *Rachel Calabro*
- Massachusetts Community Water Watch Organizers Workshop and Shoreline Survey Training–*Amy Singler, Rachel Calabro, Carrie Banks*
- Workshop Training on Water Quality and Watershed Ecology for Massachusetts Water Watch Americorps Members- *Cindy Delpapa*
- Neponset River Watershed Association: Historic Photos of the Neponset River- *Michael Merrill*
- Association of State Floodplain Managers- *Karen Peltó*
- Environmental Risk Index Meeting- *Michael Merrill*
- Dam Removal and Impounded Sediments- *Michael Merrill*
- River Restore Public Outreach Meetings in the Neponset- *Karen Peltó*
- Introduction to the MEPA Process- *Cindy Delpapa*
- LAPA West (Lake and Pond Associations)- Downstream Effects of Lake Drawdown- *Margaret Kearns*
- Massachusetts Association of Conservation Commissioners (MACC) Workshop: *Shoreline Surveys and Conservation Commissioners- Rachel Calabro and Joan Kimball*
- MACC workshop: Riparian Buffers- *Russ Cohen*
- River Visions 2002: SuAsCo Community Council Annual Conference: *Shoreline Surveys as a Watershed Action Tool- Amy Singler*
- Westfield River Wild and Scenic Study: *River Management Society Workshop- Joan Kimball*



*Railroad bridge on the Westfield River*

*First Herring Brook, Scituate*



*Pictures on back cover (clockwise left to right):  
Coles Brook, Seeconk; Powow River, Amesbury; Town River Quincy;  
Blackstone River; Weweantic River, Wareham.*

